



DEPARTMENT OF THE NAVY

PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

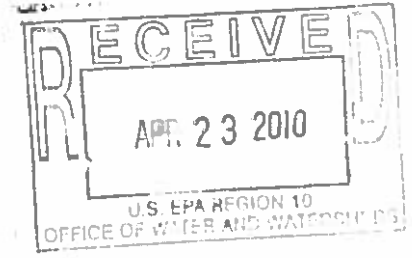
IN REPLY REFER TO:

5090

Ser 106.32/0082

APR 21 2010

U.S. Environmental Protection Agency
Michael Lidgard
Mail Code: OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101



Sir:

This letter provides Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF's) update to the renewal application of Permit No. WA-00206-2 submitted in October 1998. We are updating this information due to a planned change in the process we use to produce the Steam Plant's boiler feed water, resulting in a change to waste stream for outfall 021.

The process to produce boiler feed water is being changed from the current demineralizer process, which requires acid and caustic regeneration, to a reverse osmosis (RO) system. This results in a change from our current waste stream to only RO concentrate water. Lawyers for both of our agencies concur that this discharge is still covered under our current permit based on section VI.B of the permit. This discharge does not meet the criteria of a new source or a new discharge per 40 CFR 122.29(b). It is a modification of an existing source and this change will not significantly change the nature or increase the quantity of pollutants discharged.

Enclosures (1) through (3) contain replacement pages to our original submittal of Form 2C. The changed material on the replacement pages is italicized and marked with change bars except for section V, which is a complete revision.

Enclosure (1) contains the replacement line drawing for outfall 021 process in section II.A. The new drawing includes the entire RO process from intake water to discharge point which replaces the line drawing previously submitted which only displayed the waste water processing section of the process. Enclosure 2 contains replacement pages for sections II.B and C. Enclosure 3 contains the entire new section V for the RO concentrate discharge.

Questions or comments regarding this information may be addressed to Ms. Jacquelyn Young, Code 106.32, at telephone number (360)476-4738.



S. S. RUPP
Environmental Division
Environment, Safety, and
Health Office
By direction

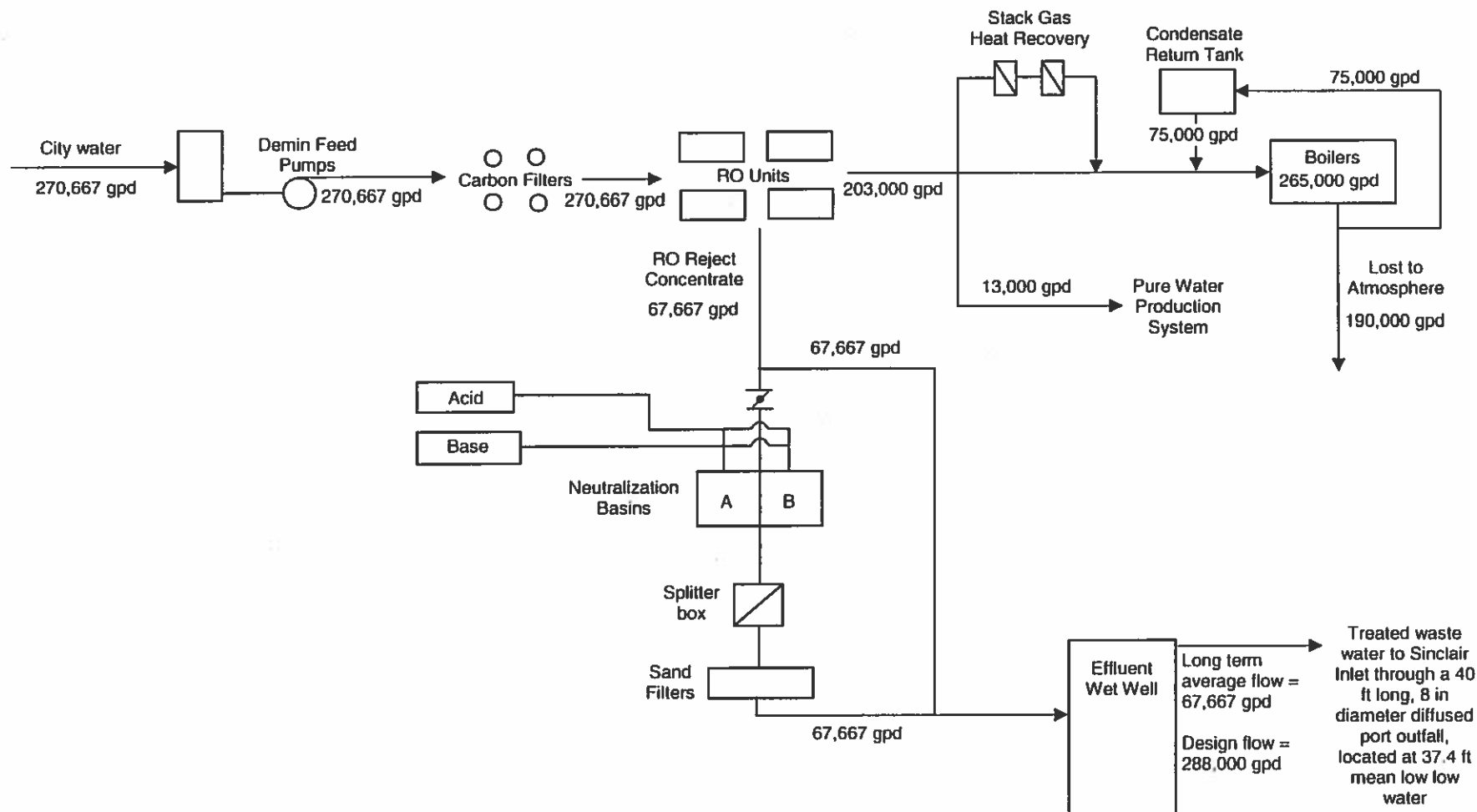
Enclosure: (1) Replacement page for Form 2C, II.A, line drawing for outfall 021
(2) Replacement page for Form 2C, II.B and C
(3) Replacement pages for Form 2C, V for outfall 021 and associated notes
(4) Lab Analysis of RO process intake water

REPLACEMENT PAGE FOR FORM 2C, II.A, LINE
DRAWING FOR OUTFALL 021

Enclosure (1)

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.



REPLACEMENT PAGE FOR FORM 2C, II.B AND C

Enclosure (2)

BMP 10 TREATED WOOD PRODUCTS

Consider substituting alternate materials for treated wood products. Where feasible, store treated wood under cover on pallets or indoors when not in use.

BMP 13 OUTDOOR WORK OPERATIONS

When performing outdoor work operations, have equipment and supplies on-hand to control and cleanup debris. Many outdoor work operations can produce debris which if not controlled can wash into Sinclair Inlet. Some common outdoor work operations of concern are sanding, cutting, grinding, painting, material transfer, and mixing; use of oils, solvents, detergents, and degreasers. Consider the potential risks of your work and prepare accordingly. Items you may need include a spill kit, drop cloths, absorbents, rubber mats, storm drain filters, tape, tarps, brooms, or vacuums.

B. For each outfall, provide a description of (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater.

1. Outfall Number	2. Operations Contributing Flow		3. Treatment		
	a. OPERATION (list)	b. AVERAGE FLOW	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
018A 018B 096	Non-contact cooling water	0.83 mgd	Gravity settling	I-U	
	Storm water	0.052 mgd			
	Hydrostatic relief water	2.02 mgd			
	Steam condensate	0.0576 mgd			
	Caisson leakage/salt water	intermittent			
	Potable water	0.14 mgd			
	Building 880 foundation drainage	negligible			
019	Non-contact cooling water	1.77 mgd	Gravity settling	I-U	
	Storm water	0.018 mgd			
	Hydrostatic relief water	4.007 mgd			
	Caisson leakage/salt water	intermittent			
	Potable water	0.072 mgd			
	Steam condensate	0.0288 mgd			
021	Production of boiler feed water	67,667 gpd	Reverse Osmosis	I-S	
			Neutralization	2-K	
			Slow sand filtration	I-V	

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ YES (complete the following table)

☐ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW					
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		c. DURATION (in days)	
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY		
018A 018B 019 096	Non-contact cooling water increases discharge when ships are in dry dock, the greatest being with aircraft carriers in Dry Dock 6.								
021	Boiler rates vary seasonally, receiving greater use in winter.	7	12	67,667	108,333			365	

**REPLACEMENT PAGES FOR FORM 2C, V FOR
OUTFALL 021 AND ASSOCIATED NOTES**

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA ID. NUMBER (copy from Item 1 of Form 1)
WA2170023418

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)	OUTFALL NO. 021
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PART A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	ND	ND										
b. Chemical Oxygen Demand (COD)	ND	ND										
c. Total Organic Carbon (TOC)	1	410					1	ppm	g			
d. Total Suspended Solids (TSS)	ND	ND					1	ppm	g			
e. Ammonia (as N)	ND	ND										
f. Flow	VALUE 108333 gpd		VALUE		VALUE 67667 gpd					VALUE		
g. Temperature (winter)	VALUE 9		VALUE NA		VALUE NA		NA	°C		VALUE		
h. Temperature (summer)	VALUE 17		VALUE NA		VALUE NA		NA	°C		VALUE		
i. pH	MINIMUM	MAXIMUM 8.3	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-87-9)		X												
b. Chlorine, Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X											X	X	X
f. Nitrate-Nitrite (as N)		X												

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
WA2170023418	021

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
																(1) CONCENTRATION
METALS, CYANIDE, AND TOTAL PHENOLS																
1M. Antimony, Total (7440-38-0)			X													
2M. Arsenic, Total (7440-39-2)		X											X	X	X	
3M. Beryllium, Total (7440-41-7)			X													
4M. Cadmium, Total (7440-43-9)			X													
5M. Chromium, Total (7440-47-3)			X													
6M. Copper, Total (7440-50-8)		X											X	X	X	
7M. Lead, Total (7439-92-1)		X											X	X	X	
8M. Mercury, Total (7439-97-6)			X													
9M. Nickel, Total (7440-02-0)			X													
10M. Selenium, Total (7782-49-2)			X													
11M. Silver, Total (7440-22-4)			X													
12M. Thallium, Total (7440-28-0)			X													
13M. Zinc, Total (7440-66-6)			X													
14M. Cyanide, Total (57-12-5)			X													
15M. Phenols, Total			X													
DIOXIN																
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1784-01-6)			X	DESCRIBE RESULTS												

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloroethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloroethane (71-55-8)			X												
28V. 1,1,2-Trichloroethane (79-00-5)			X												
29V. Trichloroethylene (79-01-6)			X												
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)			X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichlorophenol (120-83-2)			X												
3A. 2,4-Dimethylphenol (105-87-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitrophenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-Cresol (59-50-7)			X												
9A. Pentachlorophenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichlorophenol (88-05-2)			X												

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichloro- benzene (108-46-7)			X												
23B. 3,3-Dichloro- benzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-68-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitro- toluene (121-14-2)			X												
28B. 2,6-Dinitro- toluene (806-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenyl- hydrazine (as Azo- benzene) (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachloro- benzene (118-74-1)			X												
34B. Hexachloro- butadiene (87-68-3)			X												
35B. Hexachloro- cyclopentadiene (77-47-4)			X												
36B Hexachloro- ethane (67-72-1)			X												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitro- sodimethylamine (62-75-9)			X												
42B. N-Nitrosodi- N-Propylamine (621-64-7)			X												

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
WA2170023418	021

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES (continued)															
17P Heptachlor Epoxide (1024-57-3)			X												
18P PCB-1242 (53469-21-9)			X												
19P PCB-1254 (11097-69-1)			X												
20P PCB-1221 (11104-28-2)			X												
21P PCB-1232 (11141-16-5)			X												
22P PCB-1248 (12672-29-8)			X												
23P PCB-1260 (11096-82-5)			X												
24P PCB-1016 (12674-11-2)			X												
25P Toxaphene (8001-35-2)			X												

Supplemental notes to Section V for Outfall 021:

This RO process is to purify and remove salts from City of Bremerton drinking water to be used in the steam plant boilers and for pure water use in navy ships. The process will concentrate the inlet water impurities to four times the concentration; this becomes the discharge stream. This new discharge will be replacing a current discharge that consists of an acid/base neutralization of demineralizer regeneration wastewater followed by sand filtering. If the City of Bremerton inlet water pH is higher than normal however, the RO concentrate pH may be higher and the water will be sent to the neutralization basins (shown in the line drawing of Section II.A). If the water is within required pH the water could bypasses the neutralization basins and be discharged through the effluent wet well.

The values listed for flow in part V are based on history, with a maximum flow of 108,333 gpd; however, the RO units can produce up to 50 gpm and there are 4 units, so the maximum flow could be as high as 288,000 gpd.

All pollutants are expected to be present solely as a result of presence in the intake water. The RO process generally will concentrate incoming impurities to 4 times the intake levels and the pH will generally increase by 0.6 S.U. Thus pursuant to Form 2C instructions for Part V, all intake long term average values for Part V.B and V.C have been marked with an "X." We did take one sample of the intake water for analysis and this is included. The temperature data for both summer and winter was obtained through conversation with officials at City of Bremerton Water. The RO process is not expected to change the temperature from inlet to discharge.

LAB ANALYSIS OF RO PROCESS INTAKE WATER

For Official Use Only

Report Number: 2010PS01225 Amendment A



Laboratory Analysis Report

Laboratory Division

Puget Sound Naval Shipyard and IMF, Code 134, Bremerton, WA 98314-5001

Customer: Code 106.32
Job Order: 89579-PW900-S01
Customer Ref Number: B900AC EFFLUENT
Lab Code : 134.1
Project/Program: PUBLIC WORKS
Specification for Tests: ENVIRONMENTAL
Analysis/Service Requested: Customer Support Sample
RequestType: SAR

Date Submitted: 03-04-2010
Submitted by: YOUNG
Submitter's Phone:
Lab Phone: 476-8090

Remarks: THIS REPORT WAS AMMENDED DUE TO ADMINISTRIVE ERROR. THIS IS AN ORIGINAL REPORT.

Sample Date/Time: 03-04-2010 13:22

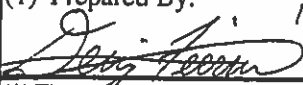

Test	Method	Result	Units	Test Date/Time
Total Recoverable Arsenic	EPA 200.7	<0.025	mg/L	03-10-2010 14:16
Total Recoverable Iron	EPA 200.7	0.071	mg/L	03-10-2010 14:16
Total Recoverable Magnesium	EPA 200.7	2.57	mg/L	03-10-2010 14:16
Total Recoverable Sodium	EPA 200.7	4.72	mg/L	03-10-2010 14:16
Total Recoverable Chromium	EPA 200.7	<0.010	mg/L	03-10-2010 14:16
Total Recoverable Copper	EPA 200.7	<0.010	mg/L	03-10-2010 14:16
Total Recoverable Lead	EPA 200.7	<0.025	mg/L	03-10-2010 14:16
Total Recoverable Nickel	EPA 200.7	<0.010	mg/L	03-10-2010 14:16
Total Recoverable Zinc	EPA 200.7	<0.025	mg/L	03-10-2010 14:16

Sample Date/Time: 03-04-2010 13:22 for TSS test

Sample Date/Time: 03-10-2010 15:20 for TOC, Ammonia, and Sulfate tests

Test	Method	Result	Units	Test Date/Time
TSS	USGS I-3765-85	<4	mg/L	03-04-2010 19:10
TOC	LP-382	1.0	ppm	03-10-2010 17:15
Ammonia	LP-179	<0.1	ppm	03-10-2010 16:45
Sulfate	LP-386	3.2	ppm	03-12-2010 10:36

Results relate only to item(s) tested.

(1) Prepared By:  180923	Date: 3/12/10	Authorized Representative:  16556	Date: 3/12/10
(1) The person designated to sign for an action verifies based on personal observation or certified records, and certifies by signature that the action has been performed in accordance with the specified requirements.			
Distribution: Code 106.32, Division Files			

Laboratory reports may be duplicated, but only in their entirety.

